

OSA - 1400-67

To: Bruce B.  
(cc: Dave W., Bob B.)

Subject: Progress Report  
Contract No. DC-1501  
16 February 67 thru 15 March 67

1. R&D Effort

1.1 Thermal Balance Analysis  
PPA vs. Cockpit Environment

Three (3) flight reports were received from the field but the information contained therein was not adequate. Further information has been requested.

1.2 Improved Communications Cord

A DCN will be forwarded on this item before 1 April 67. Action has been delayed pending completion of engineering drawing.

1.3 Supplemental Thermal Protection

No information has been received to date on the evaluation of the helmet with the constant oxygen flow valve.

1.4 Visor Latch, Positive Lock

Further work has been stopped pending receipt of direction from Bruce B.

1.5 Auxiliary Flotation Gear

The 5-4 PPA with a modified flotation collar with better adaptability for use with a parachute harness is expected to be completed by 10 April 67.

The collar will also incorporate an automatic CO<sub>2</sub> inflation valve and afford greater flotation capabilities at the back of the head. The CO<sub>2</sub> actuator lanyard will be the standard plastic<sup>2</sup> type.

A standard lumbar cushion will be attached to the exterior coverall in the same location as the present interface with the back pack. A water test will be performed to determine if the cushion inflated will contribute to and

improve the flotation capabilities of the PPA.

1.6 Increase of Suit Flotation

A prototype garment has been made up. The increased volume at the upper back has necessitated the redesign of the exterior cover in this area.

It is now expected to complete the items by 31 March 67 for a water test.

1.7 Flotation Garment Relief Valve

A two (2) psi. relief valve is being installed in the 5-4 PPA flotation garment to relieve an unmanageable pressure at altitude in the event of an inadvertent inflation. The lanyard ball is being replaced with a standard plastic pull knob. Expected to be completed by 31 March 67.

1.8 Life Raft

Work is progressing on a new test article in an endeavor to meet the packaging requirements for the seat kit.

An improved gas transfer valve has been installed.

The package is expected to be completed for testing by 31 March 67.

1.9 Heated Glove Development

Various heater wires and conductive fabrics are being tested and methods of application to the glove are being tried to reduce the complexities of construction and obtain maximum reliability and endurance.

It is expected that a glove will be completed for cold chamber testing by 28 April 67.

In one design approach, a grid of fine resistance wire was molded to the glove bladder. The hand joint areas were left open so as not to impede mobility. Some problems of filament breakage have occurred.

A durable and flexible resistance thread has been obtained and a grid pattern stitched into a nylon glove which would be used as a liner in the full pressure glove.

1.10      Study of Helmet Shell Protective Features

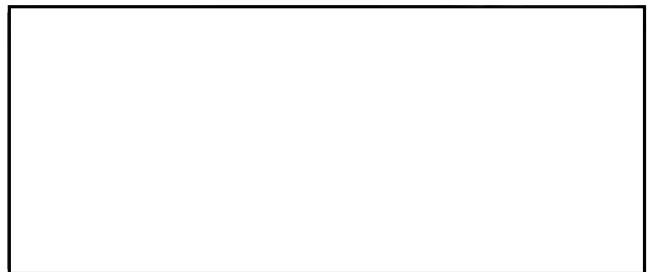
A report is being made up and will be submitted on or before 15 April 67.

As a result of testing this approach was ruled out because of the possibility of hot spots developing if the electrical conductive grid shorted. Where there is a possibility of a high concentration of oxygen in the glove this would present a fire hazard.

A fabric layer with a grid to be inserted between the bladder and glove restraint is now being worked out.

JAR/elp

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ITEMS REMAINING TO BE DELIVERED 15 March 1967

New Equipment and Supplies Form Approved For Release 2003/03/10 : CIA-RDP75B00285R000300160022-8  
Contract No. DC-CT-1503

JAR-856-1871

24 March 67

<u>Purchase Request No.</u>	<u>Customer</u>	<u>Description</u>	<u>Estimated Delivery Date</u>
PR-GN-67-08-23-009	Common	60 ea GN A2859 CO <sub>2</sub> Inflator	3 April 67
PR-GN-67-11-16-031	1	For GN ACS1438 Coverall, S/N 1045-4: 1 ea GN ACS1225, 1226, 2216, 2217 Hose Assy 1 ea GN A2859 CO <sub>2</sub> Inflator	14 April 67 3 April 67
PR-GN-67-10-04-020	1	For GN S970 PPA, S/N 1055: #1 1 ea GN A2859 CO <sub>2</sub> Inflator #2 1 ea GN ACS1225, 1226, 2212, 2213, 2216 and 2217 Hose Assy 1 ea GN A2859 CO <sub>2</sub> Inflator For GN S970 PPA, S/N 1056: #1 1 ea GN ACS1438 Coverall 1 ea GN ACS2212 and 2213 Hose Assy #2 1 ea GN S970 PPA	3 April 67 28 April 67 3 April 67 Held til #2 approved 28 April 67 10 April 67
PR-GN-67-10-17-025	1	For GN S970 PPA, S/N 5: 1 ea GN ACS1225, 1226, 2212, 2213, 2216 and 2217 Hose Assy	28 April 67
PR-GN-67-12-08-040	1	For GN ACS1617-3 Flotation Garment, S/N 17: 1 ea GN A2859 CO <sub>2</sub> Inflator 1 ea GN P8239 CO <sub>2</sub> Cylinder	3 April 67 3 April 67
PR-GN-67-12-22-042	1	For GN 10611G02 Cover, Ex., S/N 1046-3 1 ea GN A2859 CO <sub>2</sub> Inflator 1 ea GN P8239 CO <sub>2</sub> Cylinder	3 April 67 3 April 67
PR-GN-67-01-12-043	2	26 pt GN P254 Toluol	17 March 67
PR-GN-67-01-25-044	2	50 ea GN P-B7047 Socket 8 ea GN ACS2266-2 Spring, Med. -Helmet Counterbalance	17 March 67 3 April 67

Approved For Release 2003/03/10 : CIA-RDP75B00285R000300160022-8

ITEMS REMAINING TO BE DELIVERED 15 March 1967

New Equipment and Spare Parts  
Contract No. DC-CT-1503

Approved For Release 2003/03/10 : CIA-RDP75B00285R000300160022-8

JAR-856-1871

24 March 67

<u>Purchase Request No.</u>	<u>Customer</u>	<u>Description</u>	<u>Estimated Delivery Date</u>
PR-GN-67-02-01-046	2	55 ea GN P-A3268 Plunger, Valve 35 ea GN P-B3266 Check Valve, Bleed 12 ea GN P-B3896A Insert, Needle	17 March 67 3 April 67 17 March 67
PR-GN-67-02-23-048	2	10 ea GN ACS188-2L Boot, Neoprene	7 April 67
PR-GN-67-02-24-049	1	90 ea GN P5059 "O" Ring 4 hd GN P161 Fastener, Eyelet 7 hd GN P3346 Nut Stop 5 ea GN FT888 Adapter Socket	10 ea 17 Mar-Balance 3 Apr 67 17 March 67 3 April 67 3 April 67
PR-GN-67-02-28-051	2	6 ea GN 10624G01 Link-Net Section, Neck Exterior	20 March 67
67-GN-67-03-13-054	2	18 ea GN ACS1458-1 Bladder, Relief with Suspensory 18 ea GN ACS1458-2 Bladder, Relief with Suspensory 6 ea GN ACS325 Fitting, Bioinstrumentation	1 May 67 1 May 67 17 April 67
PR-GN-67-03-10-053	2	1 ea GN A2606-5 Anti-Block, Torso 1 ea GN A2606-8 Anti-Block, Torso 1 ea GN A2606-9 Anti-Block, Torso	20 March 67 20 March 67 20 March 67

Approved For Release 2003/03/10 : CIA-RDP75B00285R000300160022-8

ITEMS REMAINING TO BE DELIVERED 15 March 1967  
Repair and Modification  
Contract No. DC-TM-1504

JAR-856-1871  
24 March 67

<u>Work Order No.</u>	<u>Customer</u>	<u>Description</u>	<u>Estimated Delivery Date</u>
W/O-GN-67-10-25-008	1	For GN ACS1438 Coverall, S/N 1050-4 1 ea GN A2859 CO <sub>2</sub> Inflator	3 April 67
W/O-GN-67-12-13-013	1	Receiving & Shipping Record Purposes Only: 6 Items received and to be replaced (For GN S970 PPA, S/N 1055 and 1056, PR-GN-67-10-04-020)	Upon receipt from supplier - 20 April 67
W/O-GN-67-01-19-016	1	Receiving & Shipping Record Purposes Only: 1 ea GN ACS1621 Helmet 1 ea GN A2840 Counterbalance Spring Assy 1 ea GN A2635 PPG Visor #5	30 April 67 30 April 67 To be determined
W/O-GN-67-03-02-020	1	Receiving & Shipping Record Purposes Only: 1 ea GN ACS1438 Coverall with Experimental Flotation Collar, S/N 5-4 1 ea GN ACS880R Helmet, S/N 5-2 1 ea GN-NL Raft To be reworked: 1 ea GN 10091G01&02 Gloves, S/N 13-1 1 pr GN ACS2223 Gloves, S/N 1050-3 1 ea GN 10091G01&02 Gloves, S/N 1054-2 2 pr GN ACS2223 Gloves, S/N 13	10 April 67 10 April 67 10 April 67 Awaiting info from subject 31 March 67 31 March 67 Awaiting info from subject